



## **Dissolved organic matter and nutrients in two Eastern Mediterranean rivers**

Elli Pitta (1), Christina Zeri (2), Maria Tzortziou (3,4), Elias Dimitriou (3), Elias Moussoulis (3), Vassiliki Paraskevopoulou (1), and Emanouil Dassenakis (1)

(1) Laboratory of Environmental Chemistry, Dept of Chemistry, University of Athens, Paepistimioupolis, 15771 Athens Greece, (2) Institute of Oceanography, Hellenic Centre for Marine Research, 47 km Athinon-Souniou ave., 19013 Anavyssos, Greece, (3) Institute of Inland Waters, Hellenic Centre for Marine Research, 47 km Athinon-Souniou ave., 19013 Anavyssos, Greece, (4) University of Maryland College Park, MD, USA

The role of both inorganic and organic riverine nutrient fluxes in regulating the autotrophy vs heterotrophy in coastal seas is well recognized. Eastern Mediterranean rivers have been studied for the most part, for their inorganic nutrient fluxes, whereas little information is available for their organic nutrient content. This study presents new data on dissolved organic matter composition for two permanent Eastern Mediterranean rivers (Evros and Sperhios). Dissolved organic carbon (DOC), nitrogen (DON), phosphorus (DOP), carbohydrates and inorganic nutrients were measured along the studied rivers on a seasonal basis during 2009. Nutrient and carbon dynamics were studied in terms of seasonal changes in water flow and exchange processes at these coastal margins. Additional data on isotopic composition of DOC ( $^{13}\text{C}$ ) give an insight on DOC sources. Our results provide new information on dissolved organic matter (DOM) composition, sources and reactivity in E. Mediterranean coastal waters.